Rose like

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Rosacea

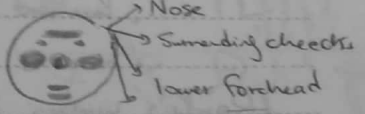
AV. Cuticis ← (Acne Rosacea)

Rosacea

- No comedones
- There is papules, Pustules

① Definition

- Chronic Relapsing
- vascular inflammatory disorder
- usually limited to center of the face (Centerofacial)



Flushing is Transient

Characterized by variable degrees of

① persistent erythema (Centerofacial erythema)

② Telangectasia (dilated tortous B.v) → Rosacea ~~just~~ acne pt Acne is

③ papules, Pustules

papulepustules ← acne is with erythematous background

Surding by erythematous halo

④ Nodules

⑤ Rhinophyma

Rosacea ← growth

⑥ oedematous plaques (non pitting oedema in face)

⑦ ocular inflammation

② age middle age (30 - 50 years) → LMOF → young adult

③ Sex females are affected more (affected earlier than Men)

Rhinophy ~ Males

④ Skin Type Common in skin types I, II (Fair sunsensitive skin)

lowest in dark Pigmented people

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Rosacea (more) ③ phymatous

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- There may be a genetic predisposition 10-20% report a family his of Rosacea.

⑤ C.P

C-P

affects mainly center of the face

- on cheeks
- Chin
- forehead
- Nose

] Blush areas of the face

(Rarely) involves → arms, legs, chest, scalp, Scrotum

(Red scrotum Syndrome)

- The skin usually oily

(Symptoms)

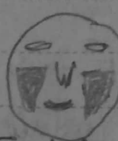
- Itchy Rash on face
  itchy [illegible]
  (acne) never itchy
  ↳ may be Tender
- Stings, burn
- Topical cream not helpful
- No Drug history

④ Subtypes of Rosacea

Progression from one subtype to another probably doesn't take place, except perhaps in cases of Sever papulopustular or glandular rosacea that eventual into phymatous form.

4 major Subtypes → each subtype is graded into → mild (1), mod (2), Sever (3)

① Subtype 1



- Facial flushing
- persistent Redness
- Telangectasia

(erythemato telangectatic)

M H S

② Subtype 2

- papules, pustules mainly on cheeks

(Papulopustular Rosacea)

M H S

③ Subtype 3

- enlargement of Nose

(phymatous Rosacea)

M H S

4 Subtype 4

- eye irritation

(ocular Rosacea)

M H S

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① Erythematotelangectatic (Vascular) Rosacea (ETR)

① Blushing → Persistent centrofacial erythema / Recurrent variation stimuli (emotional, exercise, hot weather) → then long lasting → self permanent

② Telangiectasia: on ala nasi in begining then on nose, cheeks

③ oedema: feeling of fulness of cheeks that can be sensed by patient, patient noticed subtle induration of cheeks (non pitting)

Rosacea types

② papulopustular (inflammatory) Rosacea (PPR)

① Red Small Papules, Pustules to nodules occasional deep persistent nodules + aggravation Face

X NO Comedones

• asymptomatic Papules in contrast to Acne

• NO scarring X

② * oede of affected sites

③ * history of flushing also present, usually symptoms of irritation irritation not prominent (centrofacial eythem)

flushing → irritation

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③ Phymatous Rosacea

- usually in long standing cases
- More in males
- deep red infiltrated, lobulated } Thickening of skin of Nose
+ follicular dilatation

- Represent hyperplasia of sebacous glands + C.T
- Phymatous process may develop in extranasal sites:

① Rhinophyma → apparent as dilated patulous follicles at distal end of Nose
↓
debilitating nasal deformity

② Gnathophyma → Rare (on central chin) asymmetrical swelling

③ otophyma → affect lower half of helices, lobes of ears.

④ Metophyma → cushion-like, firm, scaly on central forehead

⑤ Blepharophyma → Swelling of eye lids with ocular Rosacea or PPR

⑥ Ocular Rosacea
eye manifestation of Rosacea (PPR)

- Can occur without skin signs → difficult to diagnose

① • Mild cases → scaling of eyelid margins

② • More active disease →
① Blepharitis
② - conj. injection
③ • cysts arising from meibomian glands (chalazion)

③ • Severe ocular disease →
① keratitis
② corneal neovascularization
③ uveitis → Blindness
④ Scleritis
⑤ iritis

④ + Blepharophyma.

N.B: epithelial derived protease activity
Particularly - MMP-9
elevated in ocular Rosacea tear fluid

Rosacea Variants

① Granulomatous Rosacea → also Rosacea granuloma

- more persistent
- discrete Red to Red-brown facial papules, Nodules (non caseating granuloma)

Hp

Severe Form of Granulomatous Rosacea (LHOF) → Caseating

② Rosacea Conglobata → Acne conglobata

overlap with AV

inflammatory facial cysts with scarring

③ Rosacea Fulminans (Pyoderma Faciale): face, young

age: post-adolescent (20-40y)

Sex: females

C-f: often with No previous history of acne

Sudden eruption of purulent nodulocystic lesions (papules, pustules on background of facial erythema)

especially on Face

No systemic manifestations ×

No comedones ×

back, chest are usually free from Acne. ×

Many patients have history of flushing

Rx

① Tetracyclin (1g/day)

② or Isotretinoin 1mg/kg

③ intralesional CST or liquid Nitrogen to cysts.

④ Systemic steroids 40-60mg/day

↓ Tapered over 3-4 weeks

One of few times that oral steroids → used in Rx

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Pathogenesis — etiology

Triggering factor

1. Sun expos — 81% — PIP Smbdack
2. Emotional stress — 79%
3. Hot weather (— Hot baths, humidity, wind)
4. heavy exercise
5. Alcohol
6. Spicy foods
7. Tea, coffee → however it is the Temperature of coffee or Tea rather than caffeine that cause a flush
8. Certain skin care products

Pathogenic hypotheses of Rosacea (6)

(1) Aberrant innate immune system

1 * Innate imm response protects against Microbial infection without requiring specific Recognition of pathogenic stimulus

2 * Activation of innate immunity
↓
Release of cytokines, AMP as Cathelicidin

→ Rosacea → upregulation of cathelicidin (AMP)
↓
and its processing serine protease

degrade Matrix ← (Matrix Metalloproteinases)
↓
suggesting dysfunction of innate imm system.

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② ultraviolet Radiation (UV)

UV exposure has been shown to :

① induce angiogenesis

② ↑ production of Reactive O_2 species

which leads to upregulation of matrix metallo proteinases (MMP)

↓ zinc ↓ enzyme lysis

damage to B.V and dermal matrix

③ Vascular changes

* ↑ Blood flow seen in affected skin in Rosacea
* Rosacea patients flush more readily in Response to heat as compared with controls.
* ↑ expression of VEGF and lymphatic endothelial markers

VEGF → stimulation of B.V, lymphatic endothelial cells (Angiogenesis)

lymphatic endothelial markers → face oedema

④ epidermal barrier dysfunction → ⓡ emollients

* defect in epidermal barrier → ↑ Transepidermal water loss
* lowered Threshold for skin irritancy
* Seen in both → ETR, PPR

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(5) Neurogenic inflammation

* Sensory Nerves release neuromediators at the site of inflammation
Substance P
↓
- V.D
- extravasation of plasma proteins
- Recruitment of infl. cells

(6) Microbes

Two types in humans

(1) Demodex Mites ((1) folliculorum, (2) brevis)
↓
- commensals of Normal skin (in pilosebaceous unit)
- found in greater N in Rosacea
- (Demodex infestations)
↓
intense perifollicular infiltrate of predominantly CD_4^+ helper T cells

(2) H. pylori

(3) Staphylococcus epidermidis

(4) Bacillus oleronius

(5) Chlamydophilla Pneumoniae

Demodex folliculitis (Demodicidosis)
- sedematous papules
- background erythema

Rx → Systemic Ivermectine (Stromectol)
→ ectometrics
Topical permethrin
Skin scrapping
↓
Microscopic examination

(1) Rosacea
(2) perioral Ø
(3) Demodex folliculitis

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papule

Histopathology

acute
Erythema → ① Vasodilatation of dermal B.V

papule ← ② perivascular inflammatory infiltrate (non specific)

if UV exposed areas ← ③ solar degeneration in upper dermis (solar elastosis)

fibroblast → elastic fibers

Pustule ← ④ Neutrophils in upper dermis that migrate to epidermis

* 10% of papular lesions → (tuberculoid picture)

10%

epithelioid cells + giant cells

* The presence of granulomatous Reaction in Rosacea

explained by FB Reaction against keratinized cells of disintegrated hair strands or against elastotic material

+ve against Demodex * may be delayed hypersensitivity Reaction to Demodex folliculorum

* Rhinophyma → solar elastosis + granulomatous Reaction

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Dermoscope in Rosacea

1. Dilated B.V
2. Prominant Telangectasia
3. large polygonal vascular net (d. Thickened B.V)

① ETR	① Chronic actinic damage (dermatoheliosis) in fair Skinned individuals	• erythema, Telangectasia • Signs of actinic Skin damage wrinkles, solar elastosis, solar lentigens
	② Seborrheic dermatitis	• Scales greasy • Seborrheic distribution (eyebrows) + chest
	③ cutaneous lupus erythematosus	• Malar flush • No Telangectasia, No Blepharitis • No papules, pustules X
	④ keratosis pillaris rubra faciei	• KP • unilateral • in children, • Prolonged history • No itchy, No tenderness
	⑤ Contact D (allergic or irritant)	• Recent history • history of contact allergen • Rapid response to conventional R.

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② DDx	(Acne vulgaris)	(Rosacea)
	① • Teens	① • Adults
	② • papules, pustules	② • papules, pustules
	③ Comedones	③ (No) Comedones ✗
	④ (No) Erythema ✗	④ • Erythema (persistent) ✓
	⑤ (No) Telangiectasia ✗	⑤ • Telangiectasia ✓
	③ perioral ∅	Rim of normal skin around vermilion border of mouth
	③ (Steroid induced Rosacea)	(etiology) (fluorinated and other potent CST can cause problems {any topical or inhaled CST capable of inducing or exacerbating (Rosacea) in predisposed individuals})
	(upper lip, ala nasi)	• Presence of Rosacea like lesions on upper lip and around ala nasi is a clue that CST may be involved.
		• Sometimes → hypopigmentation → atrophy
		[illegible] Steroid [illegible]
	④ Demodex folliculitis	• usually localised to certain area
		• (but) Rosacea [illegible], symmetrical
		to do skin scrapping → see demodex under microscope
	⑤ Seb. ∅	

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Dx & Tx Management

Treatment

(1) General Recommendations for facial Skin Care

(1) wash with lukewarm water
Soap ~~with~~ free cleansers with pH balanced

(2) Cleansers: applied gently with fingertips

(3) Sunscreens with both UVA and UVB protection, SPF 7/15
↳ chemical barrier

(4) Sun-blocking creams containing physical barriers
↳ Physical barrier: Titanium di oxide and/or Zinc oxide

(5) Cosmetics, Sunscreen → contain protective Silicones

(6) water soluble facial powder containing inert green Pigment → helps to Neutralize perception of erythema

Any moisturizer is humectant, Not vice versa

7) Moisturizers containing humectants (glycerin) — absorb water from Tissue or environment
and occlusives (petrolatum) (Vaseline) helps to Repair epidermal barrier.

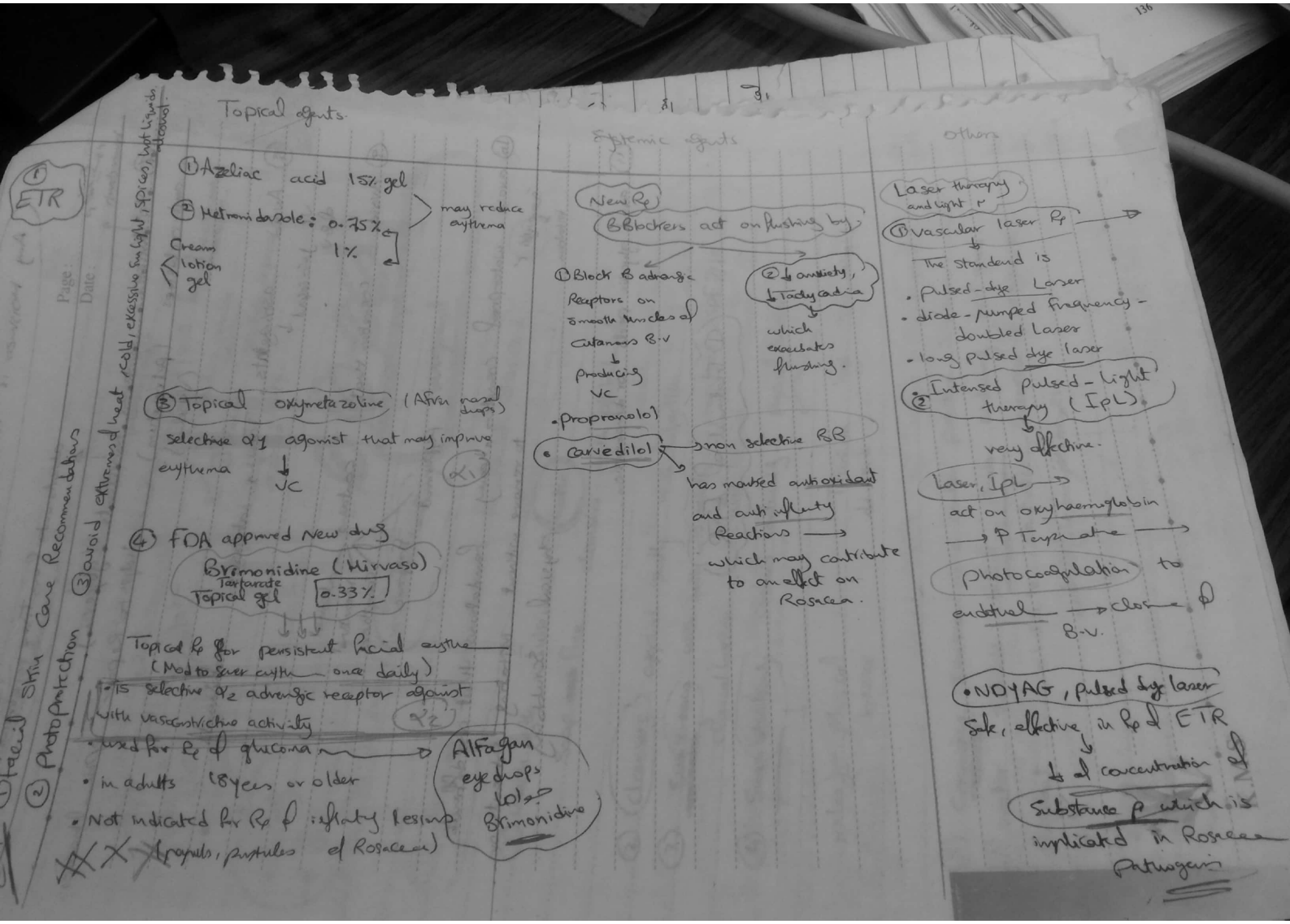
8) Avoid astringents, Toners, abrasive exfoliants

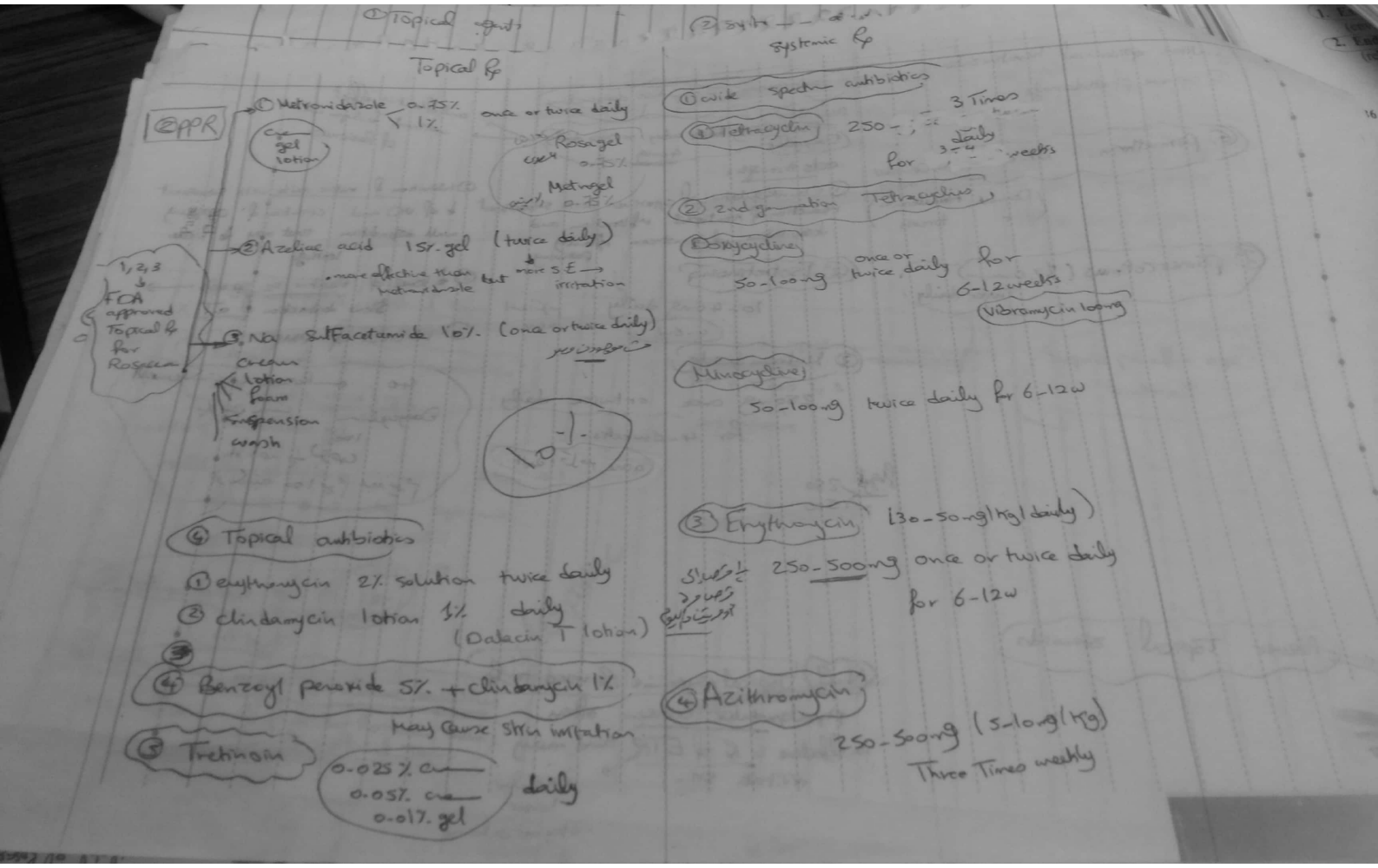
9) Avoid cosmetics that contains:
- alcohol
- Menthol
- Camphor
- Fragrance
- Peppermint

10) avoid waterproof cosmetics, heavy foundations that are difficult to remove without irritating solvents or physical Scrubbing

11) avoid glycolic peels or dermabrasion

1) Treatment of ETR





① alters epidermal keratinization
② improve photodamage

⑥ permethrin 5% cream → Demodex mites (Demodex folliculorum + brevis)

⑦ Pimecrolimus (1% cream) Twice daily

Never Topical steroids

Sub antimicrobial - dose doxycycline
New Rx: 20mg twice a day or once daily 40mg (Doxycycline) → anti-inflammatory effect without development of Resistance

acts through:
① downRegulation of cytokines with subsequent reduction of Neutrophil infiltration and deactivation of downstream inflammatory pathways.
② inhibition of nitric oxide with subsequent ↓ of VD and cessation of capillary wall degradation that may ↓ further leakage
③ ↓ level of Reactive O2 species → slow destruction of CT
④ inhibition of MMP

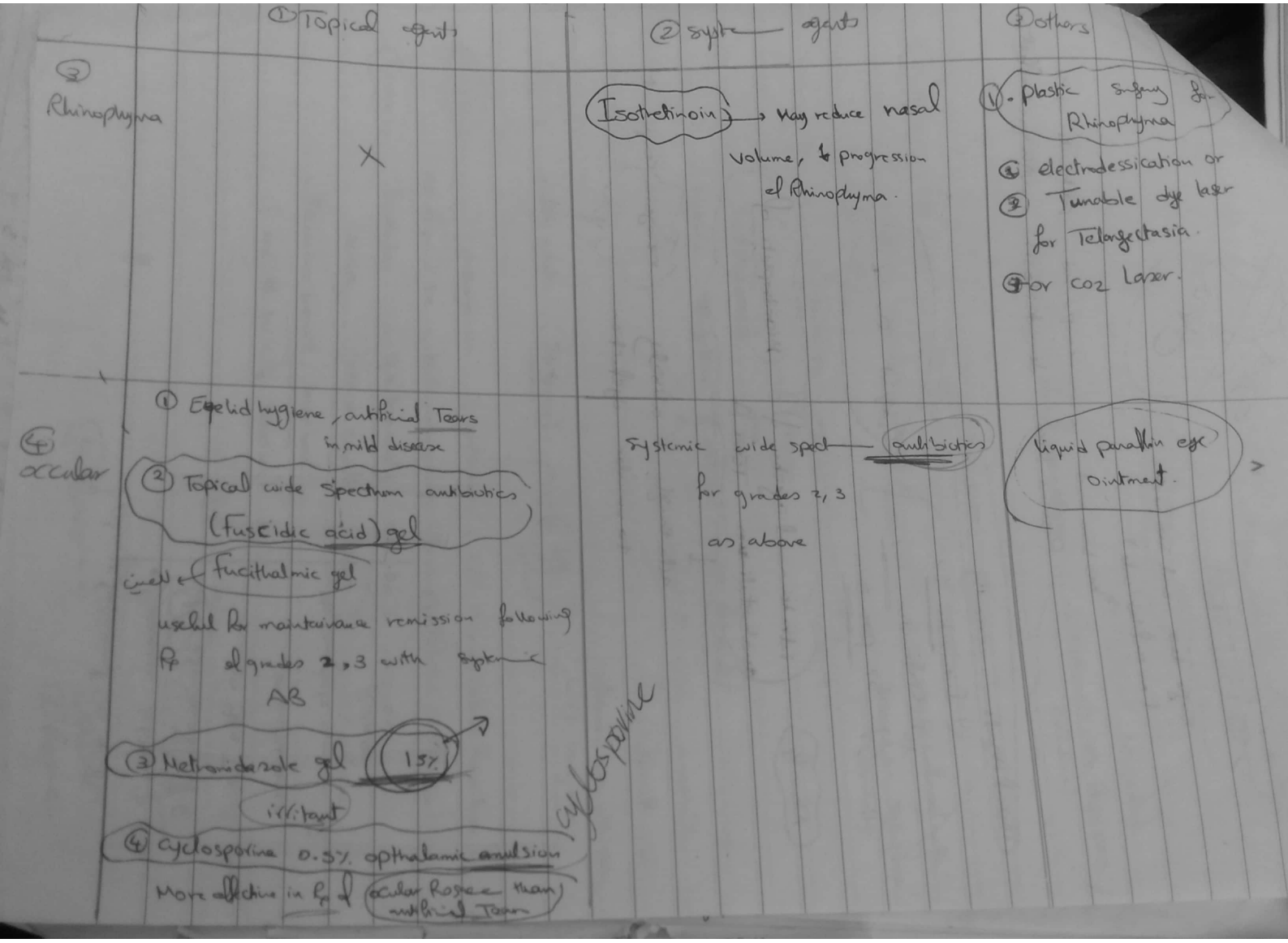
② Isotretinoin
10-40mg daily (4-6w)
الجرعة أقل من acne

③ Metronidazole
250mg once or twice daily
for 4-6 weeks

Flagyl: 250, 500

الأحسن نكتب في Rosacea ← 40
بلاش نكتب Doxycyclin 100
أو ناخد ½ الأقراص
أو نكتبه 100 يوم بعد يوم

N.B Topical / systemic Rx used to Rx papulopustular Rosacea often ineffective in Rx of ETR and may irritate skin
→ Vascular laser
- oxymetazoline



New Rx

oral ivermectin

Single dose oral ivermectin
(microfilaricide)
↳ has been used in immunocompromised patients with Rosacea like demodicidosis with good effect.

Single oral

Topical Agents recently Studied

1% Ivermectin 1%
10% Crotamiton 10%
5% 5% permethrin

against Demodex.

New Rx

intradermal injection of Microdroplets of
anabotulinum Toxin A

acts thigh alikely to vascular dysfunction.

neurogenic component

Acne agminata

LMDF (Lupus miliaris Disseminatus Faciei) Face, upper neck

↑ papular TB

↑ disseminated

Acne agminata

Figure (Facial Idiopathic Granulomas with Regressive evolution)

- uncommon
- chronic inflammatory facial dermatosis.

C.P: - Discrete dome shaped
- Reddish papules ↔ persistent asymptomatic → may be confused with Sarcoid or Syringoma clinically
- on face
  - mainly on eyelids, cheeks, upper lip ~ very characteristic
  - bilat, symmetrical
- Erythema, Telangiectasia of Rosacea are Absent
  - ✗ ✗ ✗ ✗
  - No comedones

: لون الجلد
- inflamed acne like lesion
- persist long time

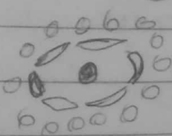
Age: young adults (20 years) ~ age

etiology: pathogenesis is unknown (??? granulomatous Reaction)
not Respond to antituberculous drugs (It may be Related to Rosacea)

Course: Involutes spontaneously usually in a year
leaving pitted small scars.
- Recurrence doesn't described
(we ↑ to ↓ scarring)

DD: ① Syring
② Acne ② Rosac
④ Sarcoid ④ papular

(Hp) ① Round granuloma composed of epithelioid cells.
and some giant cells



② with central large areas of Caseation Necrosis
③ At the periphery → chronic inflammatory infiltrate is present

④ late → lesions show fibrosis.

(Rx) ① long Term Rx with tetracycline, Minocycline
② " " " " Isotretinoin. (best)

- tetracy
- cholicin
- oral CST

Others (unlimited effect)
① low dose Prednisone
② IM Triamcinolone
③ Dapsone
④ Antimalarials (hydroxychloroquine)
⑤ Riboflavin (vit B2)
⑥ Pyridoxine (Vit B6)
⑦ Intralesional CST
Surgical Scar Revision procedures
(laser Resurfacing, Dermabrasion, Chemical Peel)

* Fox & fordyce → apocrine

(Fordyce spots)
heterotopic sebaceous glands that can occur 8 (ectopic sebaceous gland)
① around vermillion border of lips or within oral mucosa
(asymptomatic, Multiple, symmetrical, barely elevated, discrete, yellow papules)

② ventral surface of penile shaft → may become inflamed

③ areolar area of Breast

(Rx) → ① oral isotretinoin for extensive lesions
→ ② CO_2 ablative laser Rx.